#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027848 Address: 333 Burma Road **Date Inspected:** 24-Jun-2012

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1930 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Pier 7 Job Site

**CWI Name:** Bernard Docena **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Weld Procedures Followed: Yes N/A **Electrode to specification:** No Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** S.A.S. Components

### **Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project.

The QAI met with the QAIs Danny Reyes, Will Clifford and Rodney Patterson and there was a review of the Electro Slag Welding (ESW) inspection status. The QAI was informed of the Ultrasonic Testing (UT) findings and indications that are being identified. The QAI was tasked with scanning ESW welds R and S. The QAI conducted UT on accessible portions of the welds and during the inspection, multiple transverse indications were observed. The QAI noted that these indications are located while performing scanning pattern E and generally appear to have a transverse planar orientation. The QAI noted that the weld cap is not ground flush and these welds have a skewed angle. The inspections were performed using 70 degree shear wave UT, from face B. The indications did not have a rating that qualifies as rejectable or recordable according to AWS D1.5 2002. The findings are included below. The QAI noted that the welds contain rejectable indications that have been identified by the Quality Control (QC) inspections previously performed and the repairs are pending at this time.

ESW R - Face B - Scanned Y = 145-3450Y location: dB rating: Sound Path: notes: 740 9.72 79.756 restart area

780 14.68 92.964 restart area, tower side

1315 13.44 83.312 tower side

1330 18.9 128.27 tower side

1710 18 88.9 repair area, tower side

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1890 17.34 109.982 tower side

1920 15.4 96.52

1960 22.22 86.106 tower side

2180 11.2 111.76

2500 17.3 97.79

2920 18.04 113.792

3070 21.5 95.25

3155 14.52 120.396

3340 22.48 82.804 tower side

3450 13.66 144.018 tower side, needs more evaluation

# **Summary of Conversations:**

The QAI relayed these observations / findings to the QAI Danny Reyes and Robert Mertz. No welding was monitored during this shift. The QAI had general conversations with ABF personnel regarding access and work in progress. There were no notable conversations.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Croff,Scott	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer